

**Claims**

1. A driver assembly for a panel loudspeaker, the driver assembly comprising a voice coil, a magnet assembly, a substantially rigid planar member, and a retaining element for retaining the magnet assembly with respect to the voice coil, wherein the retaining element defines a first surface adapted to be removably coupled to a panel forming an acoustic radiator, and the substantially rigid planar member is attached to the voice coil and is disposed between the voice coil and said first surface.
2. The driver assembly as claimed in Claim 1 wherein the retaining element consists of a hydrogel.
3. The driver assembly as claimed in Claim 1 or Claim 2 wherein the retaining element consists of silicone.
4. The driver assembly as claimed in any preceding Claim wherein retaining element consists of a material having a Shore A hardness in the range 0 to 20.
5. The driver assembly as claimed in Claim 4 wherein retaining element consists of a material having a Shore A hardness in the range 5 to 15.
6. The driver assembly as claimed in Claim 5 wherein retaining element consists of a material having a Shore A hardness of approximately 10.

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2 7. The driver assembly as claimed in any preceding  
3 Claim wherein the retaining element functions to  
4 retain the voice coil and the magnet assembly in a  
5 spatially separated relationship.  
6
- 7 8. The driver assembly as claimed in any preceding  
8 Claim wherein the retaining element consists of a  
9 single moulded element.  
10
- 11 9. The driver assembly as claimed in any preceding  
12 Claim wherein the first surface is adapted to be  
13 removably coupled to the panel forming the acoustic  
14 radiator.  
15
- 16 10. The driver assembly as claimed in any preceding  
17 Claim wherein the magnet assembly comprises an  
18 axially extending central portion defining a first  
19 pole of a permanent magnet, a radially extending  
20 portion coupling the central portion to an axially  
21 extending magnetic shroud, the shroud defining a  
22 second pole of the permanent magnet, wherein the  
23 central portion and the shroud define a flux space  
24 therebetween.  
25
- 26 11. The driver assembly as claimed in Claim 10 wherein  
27 the voice coil extends into the flux space.  
28
- 29 12. The driver assembly as claimed in Claim 10 or Claim  
30 11 wherein the flux space is annular.  
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- 1 13. The driver assembly as claimed in any preceding  
2 Claim wherein the retaining element comprises a  
3 disc defining the first surface.  
4
- 5 14. The driver assembly as claimed in Claim 13 wherein  
6 the retaining element comprises a wall upstanding  
7 from an opposing surface of the disc.  
8
- 9 15. The driver assembly as claimed in any preceding  
10 Claim wherein a volume defined by the retaining  
11 element accommodates the magnet assembly and the  
12 voice coil.  
13
- 14 16. The driver assembly as claimed in Claim 14 or Claim  
15 15 wherein the planar member is mounted adjacent  
16 said opposing surface of the disc.  
17
- 18 17. The driver assembly as claimed in any of Claims 13  
19 to 16 wherein the wall has an inner diameter and an  
20 outer diameter, and the disc has a diameter greater  
21 than said outer diameter such that the disc defines  
22 a flange around the wall.  
23
- 24 18. The driver assembly as claimed in any of Claims 14  
25 to 17 wherein said opposing surface of the disc is  
26 provided with one or more continuous ridges  
27 extending around the wall.  
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- 29 19. The driver assembly as claimed in Claim 18 wherein  
30 the continuous ridges are concentric with the wall.  
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1 20. The driver assembly as claimed in any of Claims 14  
2 to 19 wherein the wall is provided with a radially  
3 extending flange for engaging the magnet assembly.  
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5 21. The driver assembly as claimed in any of Claims 14  
6 to 20 wherein the outer diameter of the wall  
7 decreases in a direction away from the disc.  
8

9 22. A driver assembly for a panel loudspeaker, the  
10 driver assembly comprising a voice coil, a magnet  
11 assembly, and a moulded retaining element for  
12 retaining the magnet assembly with respect to the  
13 voice coil, wherein the moulded retaining element  
14 defines a first surface adapted to be coupled to  
15 panel forming an acoustic radiator.  
16

17 23. The driver assembly as claimed in Claim 22 wherein  
18 the moulded retaining element consists of an  
19 elastomer material.  
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21 24. The driver assembly as claimed in Claim 23 wherein  
22 the elastomer is a hydrogel.  
23

24 25. The driver assembly as claimed in any of Claims 22  
25 to 24 further comprising a substantially rigid  
26 planar member attached to the voice coil, the  
27 planar member being disposed between the voice coil  
28 and said first surface.  
29

30 26. A retaining element for a panel loudspeaker driver  
31 assembly, the retaining element comprising a disc  
32 defining a first surface adapted to be removably  
33 coupled to an acoustic radiator, and a wall

1 upstanding from an opposing surface of the disc,  
2 wherein the wall is adapted to accommodate a voice  
3 coil and a magnet assembly in a spatially separated  
4 relationship.

5  
6 27. A method of mounting an acoustic radiator of a  
7 panel loudspeaker comprising the steps of:  
8 locating a voice coil and a magnet assembly in a  
9 moulded retaining element, and;  
10 removably attaching a surface defined by the  
11 moulded retaining element to a panel forming the  
12 acoustic radiator.

13  
14 28. The method as claimed in Claim 27 wherein the  
15 surface is removably attached to the panel without  
16 auxiliary fixing means.

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18 29. The method as claimed in Claim 28 wherein the  
19 surface is removably attached to the panel by  
20 adhesion.

21  
22 30. A method of manufacturing a driving assembly for a  
23 panel loudspeaker, the method comprising the steps  
24 of:  
25 forming a retaining member by injection moulding,  
26 and;  
27 assembling a voice coil and magnet assembly in the  
28 retaining member.